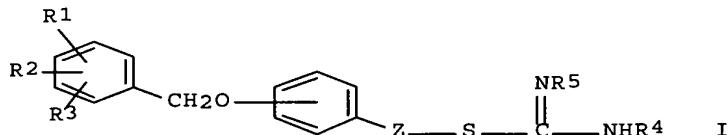


L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 1997:299182 CAPLUS Full-text
 DN 126:277282
 TI Preparation of S-[(benzyloxyphenyl)alkyl]isothiourea derivatives as
 inhibitors of Na⁺-Ca²⁺ exchanger
 IN Hori, Manabu; Yamamoto, Takeshi; Ootaka, Hiroshi; Nakajima, Fumio; Harada,
 Kengo; Morita, Tominori
 PA Kanebo Ltd, Japan
 SO Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09067336	A2	19970311	JP 1995-251775	19950904
WO 9709306	A1	19970313	WO 1996-JP2491	19960903 <--
W: US RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRAI	JP 1995-251775	A	19950904	
OS	MARPAT	126:277282		
GI				



AB The title compds. [I; R1 - R3 = H, halo, NO₂, lower alkyl or alkoxy; R4, R5 = H, lower alkyl, substituted alkyl; or R₄R₅ = (CH₂)_n; wherein n = 2,3; Z = (CH₂)_m, CH₂OCH₂CH₂; wherein m = 1,2,3] are prepared. These compds. inhibit Na⁺-Ca²⁺ exchange mechanism and inhibit reflux arrhythmia and shrinks a nest of cardiac infarction and are useful for the treatment of disorders caused by excess Ca²⁺ ions in myocardial ischemia, e.g. heart function disorders, myocardial infarction, and arrhythmia. Thus, a mixture of 1.67 g 2-[4-(3,4-dichlorobenzyl)oxy]phenylethyl methanesulfonate (preparation given), 0.34 g thiourea, and 4.4 mL ethanol was refluxed overnight to give 1.10 g S-[2-[4-(3,4-dichlorobenzyl)oxy]phenyl]ethyl isothiourea methanesulfonate. The latter compound showed IC₅₀ of 4.9 μM for inhibiting Na⁺-Ca²⁺ exchange mechanism in cardiac sarcolemma vesicles (Reeves' assay described in J. Biol. Chemical, 1983).